

Abstract

The invention relates to a method for positional optimisation in navigation, in particular neural navigation in surgery with an operation microscope and at least one optoelectronic image detector which may be connected to the microscope and also a computer system. The data obtained from the at least one image detector which lie in the microscope field-of-view for the operator, contain information on the position of an operation instrument, in particular the instrument tip. The actual position of the instrument in the x- and y-direction as well as in the z-direction of a three-dimensional coordinate system is continuously or intermittently determined from the relevant positional data. A separation determination is carried out for the positional determination in the z-direction by means of depth of focus evaluation and/or stereoscopic image analysis. The invention further relates to a navigation instrument, using marking, close to the instrument tip, lying within the field of view of the microscope during use thereof.